



Mountain Valley Pipeline – Southgate Project Lambert Compressor Station Public Informational Briefing

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Additional DEQ Staff Available to Answer Questions

- Robert Weld, Regional Director, Blue Ridge Regional Office
- Michael Dowd, Director, Air & Renewable Energy Division
- Stan Faggert and Tamera Thompson, Office of Air Permit Programs
- Mike Kiss, Manager, Office of Air Quality Assessments

Agenda

- Meeting purpose and format
- Air permit process overview
- Application background
- Project summary
- Draft permit summary
- Public comment process
- Questions and answers

Purpose of Public Informational Briefing

- Explain the air permitting process to assist the public's ability to provide meaningful comments on the draft air permit
- Provide an overview of the DEQ draft air permit determination
- Provide an opportunity for public to submit questions
- Comments and questions discussed tonight **WILL NOT** be considered as formal comments and **WILL NOT** be part of the formal record

Meeting Format

- DEQ will explain the air permitting process and review the draft permit
- After the presentation, DEQ will address questions
- Questions will be taken via the Q & A feature of GotoWebinar
- Questions can be typed in at any point during the presentation
- Please be respectful – Everyone is here to learn and to gain a better understanding of the process and proposed project.

What is an Air Permit?

- A legal document that limits the release of air pollution in compliance with applicable air pollution control laws
- Source (owner) completes an application for a permit to construct and operate
- DEQ processes the application to issue a permit in regulatory compliance

Air Permit Process Overview – DEQ Review

- DEQ reviews application
 - Reviews type and quantity of pollutants emitted
 - Determines what state and federal regulations may apply
 - Reviews Best Available Control Technology (BACT)

Air Permit Process – DEQ Review (cont'd)

- Reviews any necessary air quality analysis – including approving a modeling protocol prior to any modeling being submitted
- Determines monitoring, recordkeeping and reporting to assure compliance
- DEQ drafts permit documents
- Public participation
 - Holds public comment period if required
 - Holds public hearing if required

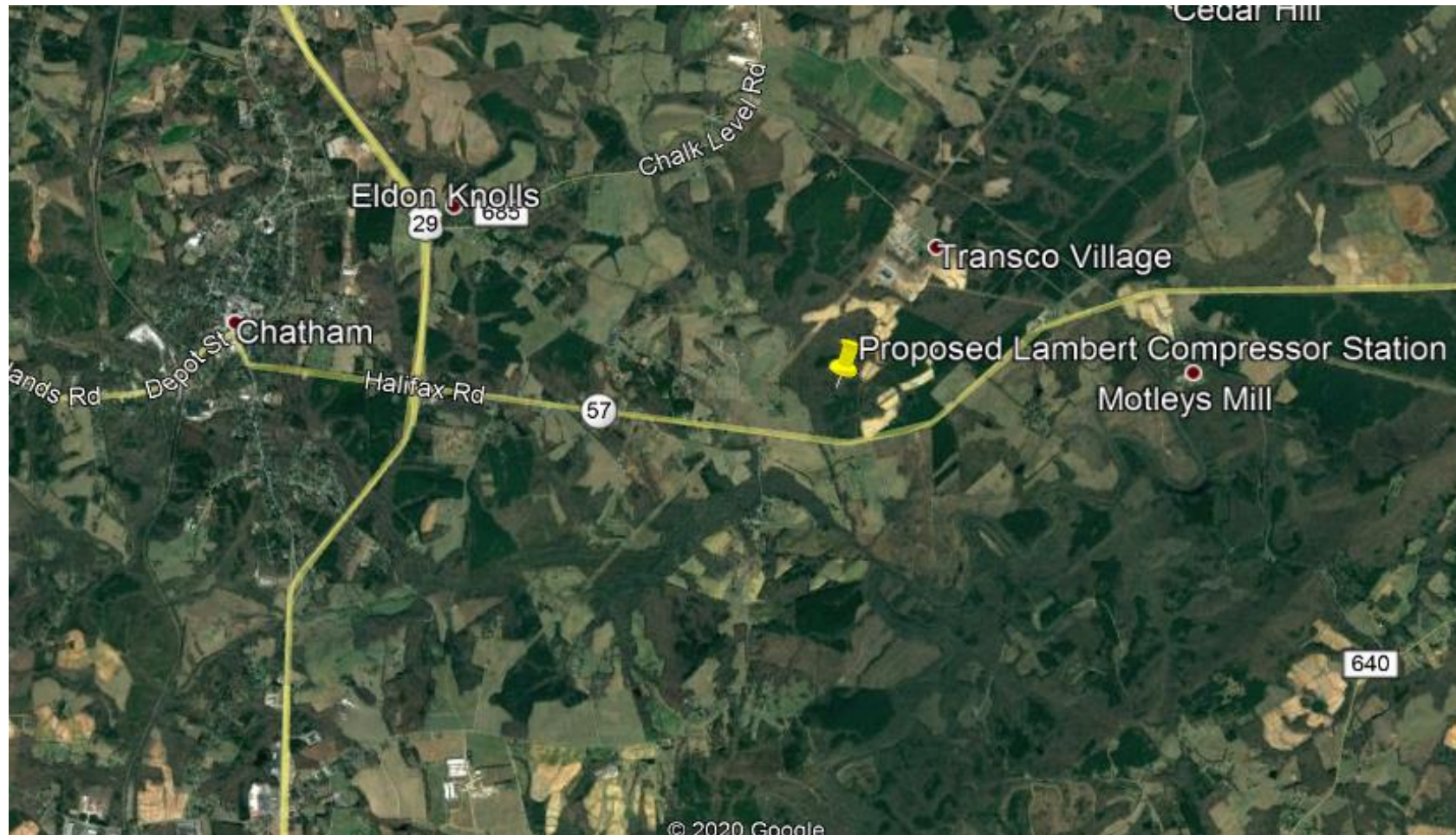
Lambert Compressor Station Application Background

- Application initially received Nov. 2018
- Local Government Exemption March 2020
- Application substantially updated in April 2019 and June 2020
- DEQ requested clarifications and updates – Sept. 2020 final submittal– application determined to be complete

Project Summary – Lambert Compressor Station (LCS)

- A compressor station is used to boost natural gas pressures along Mountain Valley's transmission pipeline system extending into North Carolina
- The emissions units are:
 - 2 natural gas-fired combustion turbines
 - 5 natural gas-fired microturbine

Project Summary – Lambert Compressor Station – Facility Location



Permit Summary – Lambert Compressor Station Project Emissions (criteria pollutants)

- Burning Natural Gas creates by-products of combustion
 - Mainly nitrogen oxides (NO_x), carbon monoxide (CO)
 - Particulates (PM₁₀, PM_{2.5}), volatile organic compounds (VOC), hazardous air pollutants (HAPs), and greenhouse gases (GHG) are emitted in smaller quantities
- Emissions from equipment leaks, venting activities
 - GHGs from equipment leaks (fittings, seals, etc.) and other blowdown events (pigging, emergency shutdown testing)
 - VOCs and GHGs in smaller quantities from produced fluid storage tanks

Project Summary – Lambert Compressor Station

Source Type

- **Major Source** – PTE \geq 100 tons per year (tpy) of any air pollutant, or \geq 10 tpy of any single HAP, or \geq 25 tpy of any combination of HAP.
- **Synthetic Minor Source** – PTE is equal to major source levels, BUT has taken restrictions to limit its PTE to less than major source levels
- **True Minor Source** – Even without controls, the PTE is below major source levels.
- PTE for the Lambert Compressor Station is less than Major Source levels.

Permit Summary - Lambert Compressor Station Pollutants Subject to Permitting

- Minor New Source Review
 - PM_{2.5} emissions > 10 tpy
 - Formaldehyde emissions > 0.0825 lb/hr; 0.174 tpy

Permit Summary – Lambert Compressor Station Controls for Combustion Turbines & Venting Activities

- PM2.5 – Low sulfur fuel, good combustion practices, inlet air filtration
- CO & VOC (including formaldehyde) – Oxidation Catalyst (OxCat)
- NOx – Selective Catalytic Reduction system (SCR)
- GHG (methane), VOC - Limit number startup/shutdown, utilize pressurized holds, Vent Gas Reduction System, block valve (emergency shutdown testing)

Permit Summary – Lambert Compressor Station Equipment Leaks (Federal Requirements)

- Equipment leaks are fugitive emission from components such as pipe connection points, valves, pumps, flanges, etc.
- Minimize equipment leaks by on-going inspections and repair:
 - Audio/visual/olfactory inspection (AVO)
 - Leak detection and repair (LDAR)
- Leaks must be fixed as quickly as possible

Permit Summary - Air Quality Analysis (Modeling) Criteria Pollutants

- An air quality analysis was performed for all pollutants
- National Ambient Air Quality Standards (NAAQS)
 - Health-based concentrations
 - Rules for the entire United States
- The surrounding area currently meets all air quality standards
- Worst case short term emissions, weather, and operations were analyzed

Permit Summary – Lambert Compressor Station National Ambient Air Quality Standards (Criteria Pollutants)

- The following NAAQS were modeled following EPA procedures:
 - 1-hour NO₂
 - Annual NO₂
 - 1-hour CO
 - 8-hour CO
 - 24-hour PM_{2.5}
 - Annual PM_{2.5}
 - 24-hour PM₁₀
 - 8-hour ozone
- All modeled results are less than the applicable NAAQS

Permit Summary – Air Quality Analysis (aka Modeling) (Air Toxics)

- Virginia Regulation for “toxic pollutants”
- Significant Ambient Air Concentration (SAAC)
 - Health-based standard
 - 1-hour and annual standards
 - Dependent on pollutant impact
- Emissions from Lambert Compressor Station
 - Worst case emissions
 - Analyzed multiple operational scenarios

Permit Summary – Lambert Compressor Station Significant Ambient Air Concentration (Air Toxics)

- The following standards were modeled:
 - 1-hour formaldehyde
 - Annual formaldehyde
 - 1-hour hexane
 - Annual hexane
- All modeled results are less than the standards (SAAC)

Permit Summary – Lambert Compressor Station Potential to Emit

- Annual Permit limits:
 - 12.4 tons per year of Nitrogen Oxides (NO_x)
 - 17.3 tons per year of Carbon Monoxide (CO)
 - 10.4 tons per year of Particulate Matter (PM₁₀ & PM_{2.5})
 - 5.4 tons per year of Sulfur Dioxide (SO₂)
 - 3.3 tons per year of Volatile Organic Compounds (VOCs)
 - 0.82 tons per year of formaldehyde

Permit Summary – Lambert Compressor Station Compliance Demonstration

- Monitoring of control devices
- Maintain records of monitoring, emissions, testing and fuel usage
- Initial & subsequent performance testing
- Submit compliance and emissions reports to DEQ
- Periodic DEQ inspections and review of records

Purpose of Public Comment Period Jan. 8 to Mar. 10, 2021

- Provide an opportunity for interested parties to comment on the draft air permit
- Refine and improve draft air permit documents as necessary based on information received during comment period
- Ensure air permit properly implements all applicable regulatory requirements and meets all federal and state air quality standards

How to Submit a Comment during the Public Comment Period?

- You can hand-deliver, mail, email, or fax your written comments
- All comments must be received by DEQ during the comment period
 - Jan. 8 to Mar. 10, 2021
- Oral comments will be accepted at the Public Hearing at 6 p.m. on Feb. 8, 2021
- Submittal must include: names, mailing addresses, telephone numbers of commenter and all persons represented by the commenter
- Comments may include request for consideration by the State Air Pollution Control Board

Public Hearing (virtual)

- Feb. 8, 2021 at 6:00 p.m.
- Written comments can be submitted up to 30 days after the public hearing date – all comments must be received by March 10, 2021. necessary to say again???

DEQ Review of Public Comments

- Public Comment Period - Comments received between Jan. 8th and March 10th including comments at the public hearing
- DEQ reviews, considers, and responds to all public comments
- DEQ makes any necessary changes to permit documents

Contact for Public Comments, Document Requests, and Additional Information

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Q & A Reminders

- Purpose is to gain a better understanding of the process
- Questions should pertain to the air quality permit
- Questions will be taken via the Q & A feature of GotoWebinar
- Comments and questions discussed tonight **WILL NOT** be considered as formal comments and **WILL NOT** be part of the formal record

Please Type in your Questions

Public Comment Period: Jan.8 to Mar. 10, 2021

Comments, additional questions, or request for permit documents can be submitted to anita.walthall@deq.virginia.gov or 540-562-6769.

Permit documents are located at: www.deq.virginia.gov/permits-regulations/public-notices/air